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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,590	02/02/2001	Charilaos Christopoulos	040000-654	6242

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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

BELIVEAU, SCOTT E

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,590

Applicant(s)

CHRISTOPOULOS ET AL.

Examiner

Scott Beliveau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 25 January 2002.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 605, 610, 615, 620, 65, 630, 635, 636, 640, 645, 650, 651, 655, 681, 660, 665, 670, 671, 675, 680, and 681 (Figure 6); 700 and 710 (Figure 7); 800, and 820 (Figure 8). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because the reference to "client 130" should be amended to reference element "135" (Page 11, Line 10). Appropriate correction is required.

Claim Rejections - 35 USC § 102

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Vetro et al. (US Pat No. 6,542,546).

In consideration of claim 1, the Vetro et al. reference discloses a method for “converting multimedia information” (Col 5, Lines 31-40). The method comprises a client or user device [360] “requesting multimedia information from a converter” [340], the “converter” [340] “receives the multimedia information “ [301] along with “conversion hints” in the form of MPEG-7 metadata (Col 5, Line 45 – Col 6, Line 53). Accordingly, the “converter” [62] “converts the multimedia information in accordance with the conversion hints” and “provides the multimedia information to the requestor”.

Claim 9 is rejected as previously set forth in the rejection of claim 1. In particular, Vetro et al. discloses an “apparatus” comprising an implicit “multimedia storage element which stores multimedia information” from which the input compressed bit stream derives [301], and a “converter element which receives multimedia information from the storage element” [340], “converts [the] multimedia information using conversion hints”, and “delivers the converted multimedia information to the client” [360].

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5. Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Hind et al. (US Pat No. 6,715,129).

In consideration of claim 1, the Hind et al. reference discloses a method for “converting multimedia information” such as a requested web page. The method comprises a client [10] “requesting multimedia information from a converter” [46] (Col 5, Line 46 – Col 6, Line 51; Col 7, Lines 9-21), the “converter” [46] “receives the multimedia information conversion hints” (Figure 4). Accordingly, the “converter” [46] “converts the multimedia information in accordance with the conversion hints” and “provides the multimedia information to the requestor” (Col 11, Lines 7-38)

Claim 9 is rejected as previously set forth in the rejection of claim 1. In particular, Vetro et al. discloses an “apparatus” comprising a “multimedia storage element which stores multimedia information” [48], and a “converter element which receives multimedia information from the storage element” [46], “converts [the] multimedia information using conversion hints”, and “delivers the converted multimedia information to the client” [10].

6. Claims 1-3 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Koz et al. (WO 93/165557).

In consideration of claim 1, the Koz et al. reference discloses a method for “converting multimedia information” such as stored video data into a format requested by a subscriber [66]. The method comprises a client [66] requesting a video file along with “conversion hints” specifying the particular compression format from a “converter” [62]. The “converter” [62] “receives the multimedia information” from a storage [78/82] and “converts the multimedia information in accordance with the conversion hints” using the appropriate

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compression standard. The converted information is subsequently “provided to the requestor” [66] (Page 6, Line 36 – Page 7, Line 27; Page 17, Line 14 – Page 19, Line 6).

Claim 9 is rejected wherein Koz et al. discloses an “apparatus” comprising a “multimedia storage element which stores multimedia information” [78/82], a “converter element which receives multimedia information from the storage element”, “converts [the] multimedia information using conversion hints”, and “delivers the converted multimedia information to the client” [66] (Page 6, Line 36 – Page 7, Line 27; Page 17, Line 14 – Page 19, Line 6).

Claims 2 and 10 are rejected wherein the “converter” and “converter hints” are “transcoding hints” specifying the particular compression format to supply the requested data.

Claims 3 and 11 are rejected wherein the “converter” [62] implicitly “stores user preferences” such that the “multimedia information is converted to a multimedia format in accordance with the user preferences using the conversion hints”. For example, it is the “user preference” so as to utilize the “conversion hint” that specifies which compression standard to utilize such that the received multimedia is not received using an incompatible standard.

7. Claims 1-6, 8-13, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Tso et al. (WO 98/43177).

In consideration of claim 1, the Tso et al. reference discloses a method for converting multimedia information. The method comprises a “client” [12] “requesting multimedia information from a converter” [20] (Page 4, Line 17 – Page 5, Line 7). The “converter” [20] subsequently “receives the multimedia information” either from a local cache or other remote

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source (Page 5, Lines 20-29; Page 6, Lines 23-29) along with “conversion hints” [26] , “converts the multimedia information in accordance with the conversion hints” [24] (Page 11, Line 22 – Page 13, Line 19; Page 17, Lines 11-25) and “provides the multimedia information to the requester” [12] (Page 5, Lines 9-29).

Claim 9 is rejected as previously set forth in the rejection of claim 1. As illustrated in Figure 3, the reference discloses an “apparatus” [34] comprising: a “multimedia storage element which stores multimedia information” [30]; a “converter element which receives multimedia information from the multimedia storage element” [20]; and a “client” [12], wherein the “converter element converts multimedia information using conversion hints and delivers the converted multimedia information to the client”.

Claims 2 and 10 are rejected wherein the “converter” [20] is a “transcoder” and the converter hints are transcoding hints” so as to select the appropriate transcoding per predetermined selection criteria (Page 5, Lines 1-7).

Claims 3 and 11 are rejected wherein the system further “stores user preferences, wherein the multimedia information is converted to a multimedia format in accordance with the user preferences using the conversion hints” (Page 12, Line 26 – Page 13, Line 4).

Claims 4 and 12 are rejected wherein the system further “stores client capabilities, wherein the multimedia information is converted to a multimedia format in accordance with the client capabilities using the conversion hints” (Page 12, Lines 10-16).

Claims 5 and 16 are rejected wherein the system further “stores network or link capabilities, wherein the multimedia information is converted to a multimedia format in

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accordance with the network or link capabilities using the conversion hints” (Page 12, Lines 19-24).

Claims 6 and 13 are rejected wherein the “multimedia data includes still images” (ex. GIF or JPEG) (Page 17, Line 27 – Page 18, Line 2), and wherein the “transcoding hints are selected from the group consisting of: bitrate, resolution, frame size, color quantization, color palette, color conversion, image to speech, Regions of Interest (ROI), and wavelet compression” (Page 12, Lines 6-16).

In consideration of claims 8 and 15, the “conversion hints are stored along with the multimedia information prior to requesting the multimedia information” wherein the “conversion hints” may be predefined and the “multimedia information” may be cached.

Claim 17 is rejected wherein the “multimedia storage element is included in another client” as the transcoding server [34] also acts as a proxy or client, if the requested need be retrieved from the internet [18] from another content server.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent

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any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koz et al. (WO 93/165557).

In consideration of claims 5 and 16, the reference discloses that it is operable to be utilized in connection with a plurality of “networks” or “link capability” types (Page 30, Lines 7-15). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to “store network or link capabilities” transmission capability parameters such that “the multimedia information is converted to a multimedia format in accordance with the network or link capabilities using the conversion hints” for the purpose of ensuring the multimedia format is compressed and distributed in a manner such that it may be viewed in a real-time fashion (Page 4, Lines 25-27).

11. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al. (WO 98/43177).

Claims 7 and 14 are rejected wherein the “multimedia data includes motion video” (ex. MPEG) (Page 17, Line 27 – Page 18, Line 2). While the reference discloses that the user is operable to indicate preferences as to the particular transcoding aspects such as a content quality/latency trade off (Page 19, Lines 5-8), the reference does not particularly disclose nor preclude the usage of video compression techniques. The examiner takes OFFICIAL NOTICE as to the existence of the usage of “motion vector prediction or macroblock coding”

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as known video compression techniques each with its particular advantages or disadvantages associated with its usage. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to provide such as a "hint" for the purpose of providing a flexible means of implementing a variety of content/latency tradeoffs based upon the particular format of the multimedia data and user preferences. For example, if a user wants a high quality image quickly, but does not care about the image background, then it would be advantageous to utilize macroblock-coding techniques in connection with the video compression.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Cristopoulos et al. (WO 98/19460) reference discloses a transcoder that converts video from CIF to QCIF at a gateway in real-time for delivery to the client.
- The Moroney et al. (US Pat No. 6,532,593) reference discloses a technique of transcoding for consumer set-top storage applications.
- The Vetro et al. (US Pat No. 6,574,279) reference discloses a method for transcoding based on a conversion mode associated with MPEG-7 meta data.

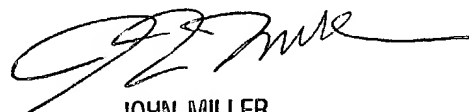
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.

The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

SEB
August 23, 2004